

**Amendments to the Claims**

Claims 1 – 14. (Canceled).

Claim 15. (New) A honeycomb seal, in particular to seal a radial gap between a rotor and a stator of a gas turbine, wherein the honeycomb seal is manufactured by powder metallurgical injection molding.

Claim 16. (New) The honeycomb seal according to Claim 15, wherein the honeycomb seal is composed of several segments and wherein the segments are embodied as a single piece and include a base element and honeycomb elements, and further wherein the base element bears the honeycomb elements.

Claim 17. (New) The honeycomb seal according to Claim 16, wherein the segments are manufactured by powder metallurgical injection molding.

Claim 18. (New) The honeycomb seal according to Claim 16, wherein the segments are connectable to a supporting structure and wherein the segments and the supporting structure are manufactured of different materials.

Claim 19. (New) The honeycomb seal according to Claim 18, wherein the base element of the segments include at least one guide section, wherein the segments are connectable to the supporting structure via the guide section, and wherein adjacent segments are interlocked with each other by a projection of a first segment engaging with a corresponding recess of a second segment.

Claim 20. (New) A honeycomb seal, in particular to seal a radial gap between a rotor and stator of a gas turbine, wherein the honeycomb seal has a base element and honeycomb elements that are embodied as a single piece with the base element.

Claim 21. (New) The honeycomb seal according to Claim 20, wherein the honeycomb seal is composed of several segments, wherein each segment has a base element and honeycomb elements that are embodied as a single piece with the base element.

Claim 22. (New) The honeycomb seal according to Claim 21, wherein the base element of each segment includes at least one guide section and wherein each segment is connectable to a supporting structure via the guide section.

Claim 23. (New) The honeycomb seal according to Claim 21, wherein a first end of the segments includes a projection and a second end of the segments includes a recess and wherein the projection of a first segment is received within the recess of an adjacent segment.

Claim 24. (New) The honeycomb seal according to Claim 22, wherein the segments of the honeycomb seal and the supporting structure are manufactured of different materials.

Claim 25. (New) The honeycomb seal according to Claim 20, wherein the honeycomb seal is manufactured by powder metallurgical injection molding.

Claim 26. (New) The honeycomb seal according to Claim 22, wherein the honeycomb seal and the supporting structure are manufactured as a single piece.

Claim 27. (New) The honeycomb seal according to Claim 18, wherein the honeycomb seal and the supporting structure are manufactured as a single piece.

Claim 28. (New) The honeycomb seal according to Claim 15, wherein the radial gap sealed by the honeycomb seal lies between a rotating moving

blade of the rotor and a housing of the stator or between a non-rotating guide blade of the stator and the rotor.

Claim 29. (New) The honeycomb seal according to Claim 20, wherein the radial gap sealed by the honeycomb seal lies between a rotating moving blade of the rotor and a housing of the stator or between a non-rotating guide blade of the stator and the rotor.

Claim 30. (New) The honeycomb seal according to Claim 16, wherein the honeycomb elements and the base element are composed of different materials.

Claim 31. (New) The honeycomb seal according to Claim 20, wherein the honeycomb elements and the base element are composed of different materials.

Claim 32. (New) A method for manufacturing a honeycomb seal for sealing a radial gap between a rotor and a stator of a gas turbine, comprising the step of manufacturing the honeycomb seal by powder metallurgical injection molding.

Claim 33. (New) The method of Claim 32, further comprising the steps of:

subjecting a molded honeycomb seal to a releasing process to release a binding agent used in the powder metallurgical injection molding process; and compressing the molded honeycomb seal after the releasing process via a sintering process.

Claim 34. (New) The method of Claim 32, further comprising the steps of forming the honeycomb seal in a plurality of segments wherein each segment is formed as a single piece that includes a base element and honeycomb elements and further wherein the base element bears the honeycomb elements.

Claim 35. (New) The method of Claim 34, further comprising the steps of connecting the plurality of segments to a supporting structure and manufacturing the plurality of segments and the supporting structure of different materials.

Claim 36. (New) The method of Claim 35, further comprising the steps of connecting a guide section of the base element to the supporting structure and interlocking adjacent segments with each other by engaging a projection of a first segment with a recess of an adjacent second segment.

Claim 37. (New) A method of forming a honeycomb seal, in particular to seal a radial gap between a rotor and stator of a gas turbine, comprising the step of forming a base element of the honeycomb seal with honeycomb elements of the seal as a single piece.

Claim 38. (New) The method of Claim 37, further comprising the steps of:

forming the base element in a first material; and  
forming the honeycomb elements in a second material.

Claim 39. (New) The method of Claim 37, further comprising the steps of:

forming the honeycomb seal in a plurality of segments, wherein each segment includes a base element and honeycomb elements;  
forming a first segment of the plurality of segments in a first material; and  
forming a second segment of the plurality of segments in a second material.

Claim 40. (New) The method of Claim 37, further comprising the steps of:

forming the honeycomb seal in a plurality of segments, wherein each segment includes a base element and honeycomb elements;

forming a first segment of the plurality of segments in a first physical geometry; and

forming a second segment of the plurality of segments in a second physical geometry.